

- Fig. 5. Left leg of the first pair of the same, from the outside. $\times 4$.
 Fig. 6. Left leg of the second pair of the same, from the outside. $\times 4$.
 Fig. 6a. Apex of propodite of same, to show the rudimentary nodular dactylopodite.
 Fig. 7. *Psalidopus Hurtegi*, last thoracic sternum with bases of legs of last pair of female. Nat. size.
 Fig. 8. *Psalidopus spiniventris*, last thoracic sternum with leg bases of male. Nat. size.

PLATE XV.

- Figs. 1, 1a. *Psalidopus spiniventris*, mandible. $\times 5$.
 Fig. 2. First maxilla. $\times 5$.
 Fig. 3. Second maxilla. $\times 5$.
 Fig. 4. First maxillipede. $\times 5$.
 Fig. 5. Second maxillipede. $\times 5$.
 Fig. 6. Third maxillipede. $\times 2$.
 Fig. 7. Left abdominal appendage of the first pair in female. $\times 2$.
 Fig. 8. Left abdominal appendage of the second pair in female. $\times 2$.
 Fig. 9. Left abdominal appendage of first pair in male. $\times 2$.
 Fig. 10. Left abdominal appendage of second pair in male. $\times 2$.

XLII.—Description of a new Genus and some new Species of Heterocera from Central America. By HERBERT DRUCE, F.L.S.

Fam. *Ægeriidæ*.

ÆGERIA, Fabr.

Ægeria armasata, sp. n.

Primaries and secondaries hyaline, with a slightly yellowish tinge, the costal, outer, and inner margins of the primaries edged with yellowish brown, the veins of both wings yellowish brown, those of the secondaries being the darkest; the fringe of the secondaries dark brown. The underside of both wings light yellow. The palpi and front of the head yellow; the antennæ dark brown, yellowish at the base; the thorax and abdomen blackish brown, with a yellow line at the base of the abdomen; the anal tuft yellowish brown; the legs orange, banded with black.

Expanse $1\frac{1}{4}$ inch.

Hab. Mexico, near Durango city (*Becker*).

A fine species, very distinct from all others known to me.

Ægeria mardia, sp. n.

This species is allied to *Ægeria tryphoniformis*, Walker,

from which it differs as follows:—The primaries and secondaries are quite hyaline, with the streak at the end of the cell and the spot at the apex bright orange-red instead of pale yellowish brown; the head, thorax, and abdomen black instead of yellow, as in *Æ. tryphoniformis*; the anal tuft large and bright orange-red; antennæ black; palpi orange.

Expanse $\frac{3}{4}$ inch.

Hab. Mexico, near Durango city (*Becker*).

MELITTA, Hübn.

Melitta Beckeri, sp. n.

Primaries greenish brown, very thickly irrorated with pale green scales, the fringe greenish brown: secondaries hyaline, with all the veins bright orange-red, the marginal line black, the fringe dark brown. The underside of the primaries pale yellow near the apex, which is greenish brown; the secondaries the same as above. The head and thorax greenish brown, the same colour as the primaries; the palpi yellow; antennæ black; the abdomen blackish brown; the anal tuft yellow; the hind legs long and very thickly clothed with hair, that nearest the base on the outer side being pale yellow, that on the tibia and tarsus black on the inner side, bright orange on the outer side, almost white close to the ungues. The underside of the abdomen is banded with yellow.

Expanse $1\frac{1}{2}$ inch.

Hab. Mexico, near Durango city (*Becker*).

This fine species is allied to *M. satyriniformis*, Hübn., from which it is at once distinguished by the orange-red veins of the secondaries and much paler green primaries.

Fam. Saturniidæ.

METOSAMIA, gen. nov.

Male.—Head rather small. Thorax broad. Abdomen short and thick, not extending to the middle of the inner margin of the secondaries. Antennæ very deeply pectinate, more so than in the genus *Samia*. Palpi very minute; legs stout and rather short, thickly clothed with hairs. Primaries with the costal margin very much arched from the middle to the apex, which is very pointed, the outer margin very deeply concave and dentated between the veins; the anal angle rounded; the inner margin straight; the cell very broad and much shorter than in *Samia*. Secondaries: the costal margin very much rounded to the apex, which is quite pointed; the

outer margin deeply concave to the middle, then almost straight to the anal angle, dentated slightly between the veins; the inner margin slightly curved from the abdomen, the anal angle rounded.

Type *Metosamia Godmani*.

Saturnia montezuma, Sallé, will also come into this genus. Both species will be figured in the 'Biologia.'

Metosamia Godmani, sp. n.

Male.—Primaries and secondaries uniform bright orange-brown; primaries with nearly two thirds of the costal margin broadly edged with greyish brown, thickly irrorated with white scales; a large white spot at the base of the wing close to the thorax; a large V white mark at the base of the cell and a large hyaline oval spot at the end of the cell bordered with pale yellow and edged with a very fine black line; a pinkish-white line partly crosses the wing near the base; a rather wide black submarginal line edged with pinkish-white scales extends from the costal margin close to the apex to the inner margin just above the anal angle: secondaries crossed below the middle from the costal margin to the anal angle by a black line corresponding to the one on the primaries, but only edged with pinkish-white scales from the end of the cell to the anal angle; a small hyaline spot at the end of the cell broadly bordered with pale yellow, edged with a rather wide black line, the black line on the upperside being divided into two by a narrow line of bluish-white scales. Under-side: both wings reddish brown, thickly irrorated round the outer margins and at the base of the secondaries with black and pinkish-white scales. The head, front of the thorax, and base of the tegulae greyish brown, thickly irrorated with white hairs; the thorax, abdomen, tegulae, and legs bright orange-brown; the antennae pale yellowish brown.

Expanse 7 inches.

Hab. Mexico, Oaxaca (*E. D. Godman*).

This very grand insect was obtained by Mr. Godman during his last visit to Mexico. I at first thought it might possibly be the species described by Sallé as *Saturnia montezuma*; but having recently received a careful drawing of that species made from the type, and since then a very fine specimen of that species, it at once proved that the insect I have very much pleasure in naming after Mr. Godman is exceedingly distinct.

TELEA, Hübn.

Telea aurelia, sp. n.

Male.—Primaries and secondaries pale fawn-colour; primaries crossed from the costal to the inner margin by a very wide black band, edged on both sides with a waved black line, which is edged on the inner side with pink and white scales; the costal margin thickly irrorated with white scales from the base almost to the apex; the apex streaked with pink and white, with a rather large black spot on the costal margin; a large hyaline spot at the end of the cell, bordered with reddish fawn-colour and then broadly with black, the basal half of the black ring being thickly irrorated with bluish-white scales; a narrow, straight, fawn-coloured line extends from the costal margin close to the apex to the inner margin above the anal angle: secondaries, the central part of the wing dusky black; a large hyaline spot at the end of the cell very broadly bordered with deep black, which is thickly irrorated on the inner side with pale blue scales; a submarginal pale fawn-coloured line extends from the costal margin to the anal angle. Underside pale fawn-colour, thickly irrorated with white scales, with the markings very similar to those above, but of a dark brown colour. The head, underside of the thorax, and legs dark brown; the collar and front of the thorax greyish white, the thorax and abdomen pale fawn-colour; the antennæ yellowish brown.

Expanse $5\frac{3}{4}$ inches.

Hab. Mexico, near Durango city (*Becker*).

This species is very distinct from any known to me.

Fam. *Hepialidæ*.

PHASSUS, Walker.

Phassus marcius, sp. n.

Primaries pale greyish brown, thickly marked with grey and darker brown lines; a double row of blackish-brown elongated spots crosses the wing from the costal margin near the apex to the inner margin, and a row of elongated curved lines extends round the outer margin from the apex to the anal angle; a rather long metallic gold streak broken into three spots at the end of the cell, beyond which, nearer the outer margin, are two very minute metallic gold dots: secondaries pale greyish brown, palest at the base, with several indistinct

darker markings on the costal margin close to the apex. The head, thorax, and abdomen pale greyish brown.

Expanse $4\frac{2}{10}$ inches.

Hab. Mexico, near Durango city (Becker).

A fine distinct species, allied to *P. argentiiferus*, Walker.

XLIH.—Observations on the Dentition of Mammals*.

By W. KÜKENTHAL †.

WE do not yet possess a satisfactory explanation of the tooth-change of Mammals, as was shown by M. Schlosser ‡ only a short time ago.

The conjecture that both series of teeth have been derived from the Reptiles is at once opposed by a number of statements, according to which in the lower orders of Mammals tooth-change is either entirely absent, or, as in the case of the Marsupials, is confined to one premolar. Flower's § hypothesis, afterwards considerably expanded by Oldfield Thomas ||, that the milk-dentition represents a fresh acquisition on the part of the higher Mammals, and that the permanent series alone is the original one, could therefore be supported by many weighty reasons. From among the large number of views which differ from this in more or less material points, I will here merely allude to that of Baume ¶, according to which both series of teeth have had merely a secondary origin. For Baume supposes that owing to the shortening of the jaws which set in in the course of the evolution of Mammals, the originally numerous and similar teeth could no longer find room in one series, so that a portion of them became displaced and were able to appear only later on, as the permanent dentition.

* I intend to give a detailed exposition of the present investigations in the second volume of my 'Vergleichend-anatomischen und entwickelungsgeschichtlichen Untersuchungen an Waltieren' (Denkschriften der mediz.-naturw. Gesellschaft in Jena, Bd. iii.).

† Translated from a separate impression from the 'Anatomischer Anzeiger,' vi. Jahrgang (1891), no. 13, pp. 364-370.

‡ M. Schlosser, "Die Milchbeziehung der Säugetiere," Biolog. Centrabl. 1890.

§ W. H. Flower, "On the development and succession of the Teeth in the Marsupialia," Phil. Trans., 1867.

|| O. Thomas, "On the homologies and succession of the Teeth in the Dasyuridae, with an attempt to trace the history of the evolution of the Mammalian Teeth in general," Phil. Trans. vol. 178, pp. 443-462.

¶ Baume, "Versuch einer Entwicklungsgeschichte des Gebisses"; Leipzig, 1882.